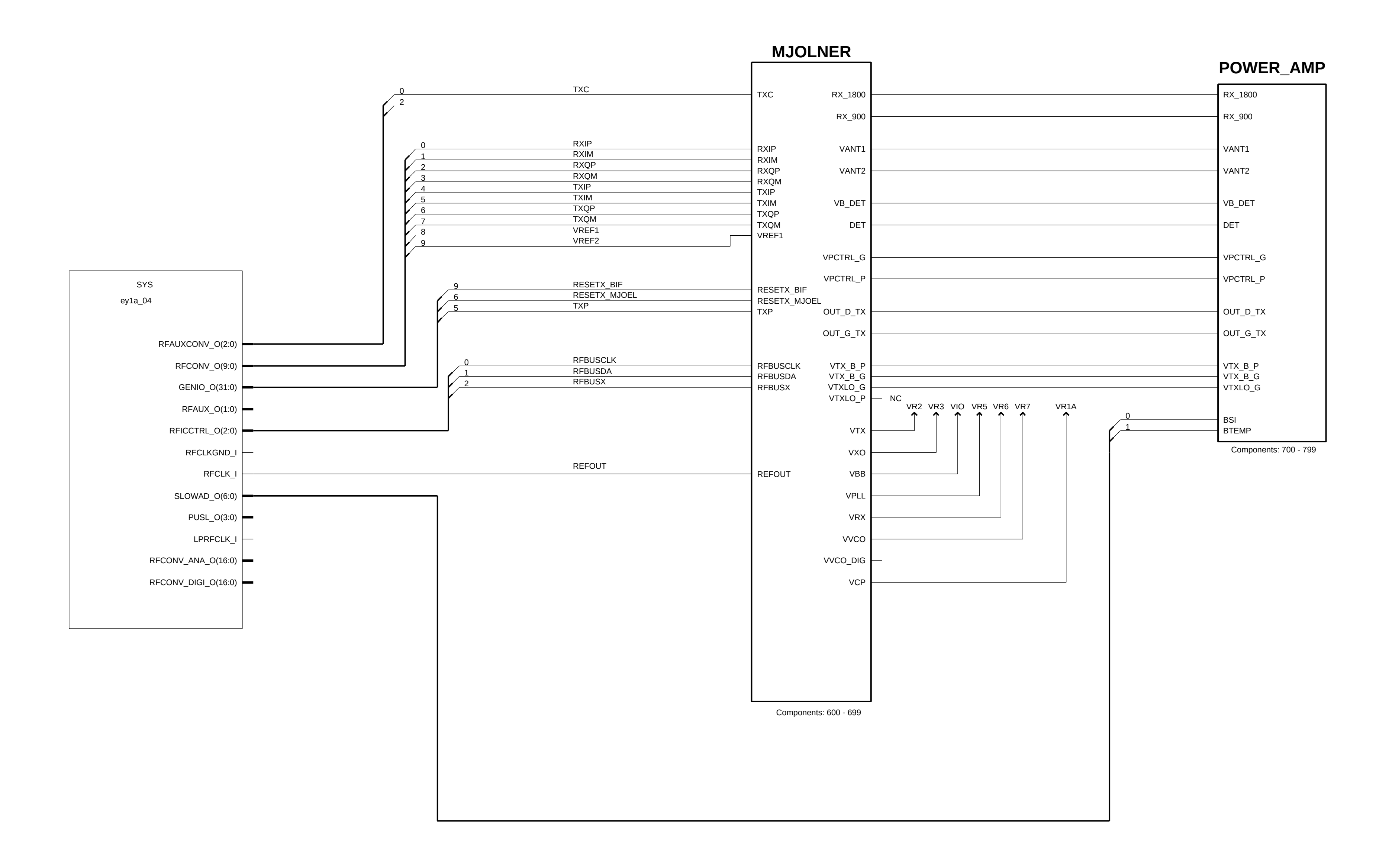
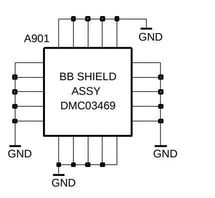
Module top sheet

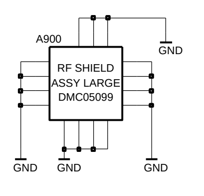


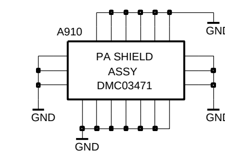
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Shielding's cans

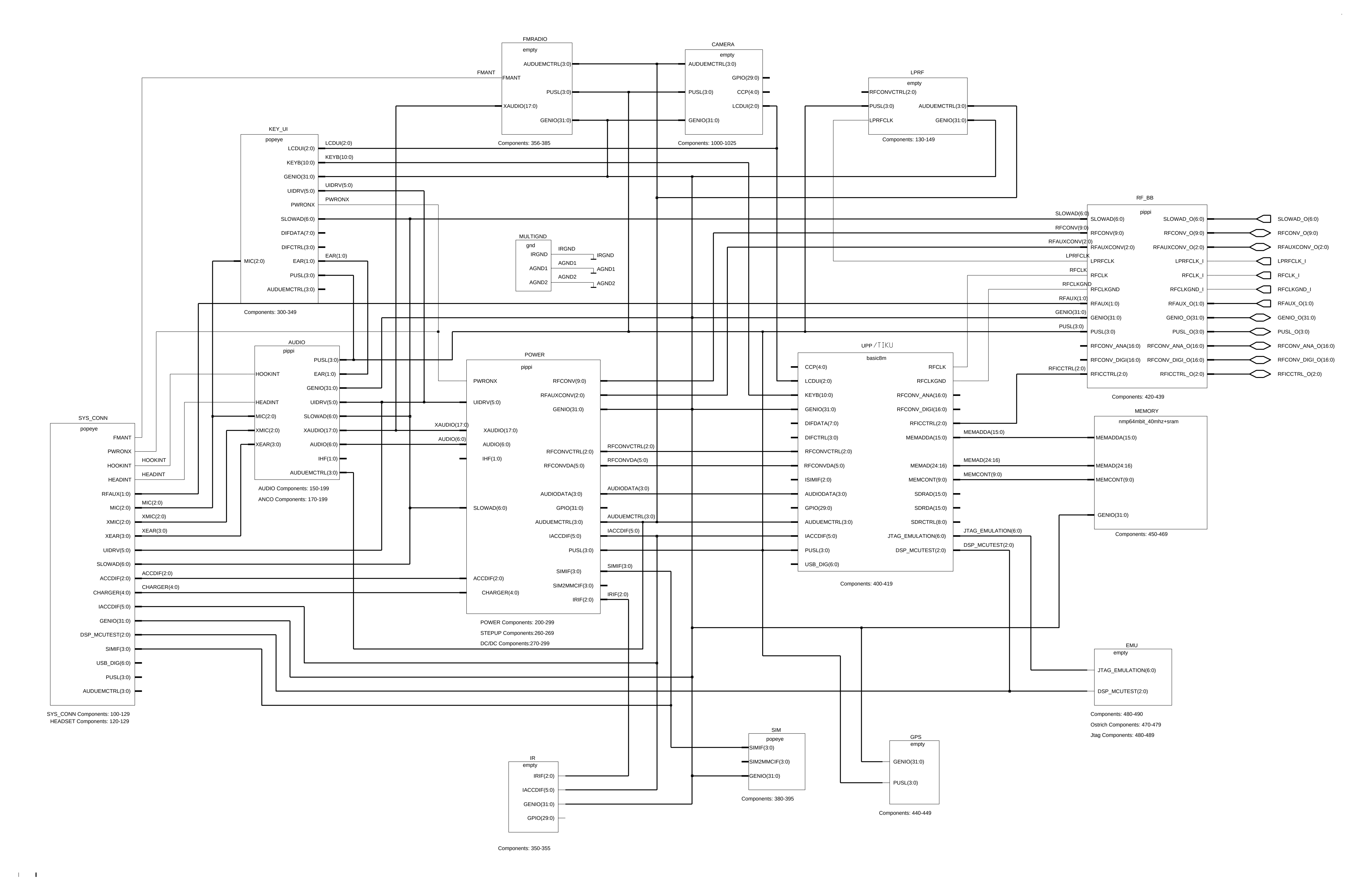




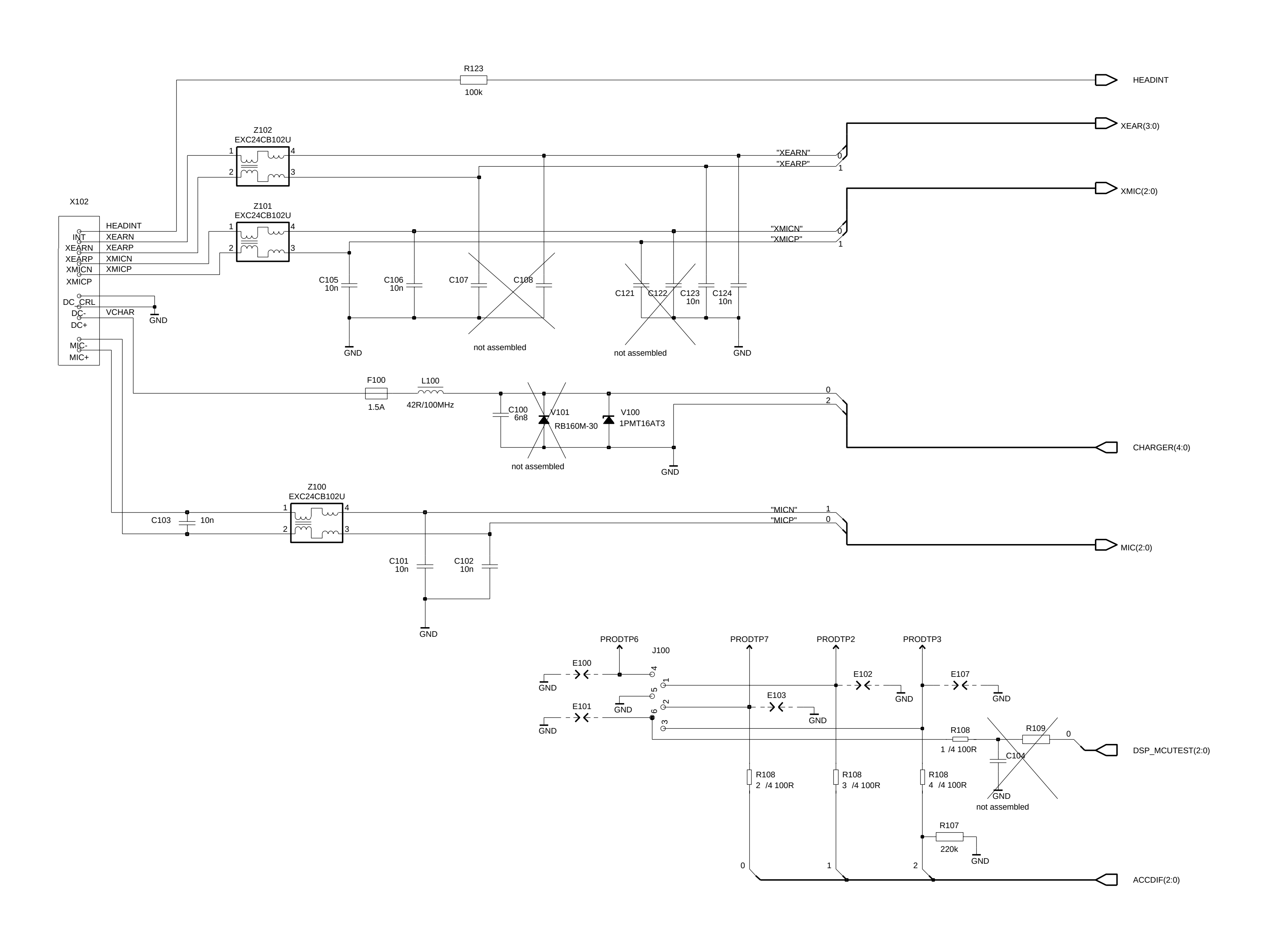




BB top sheet

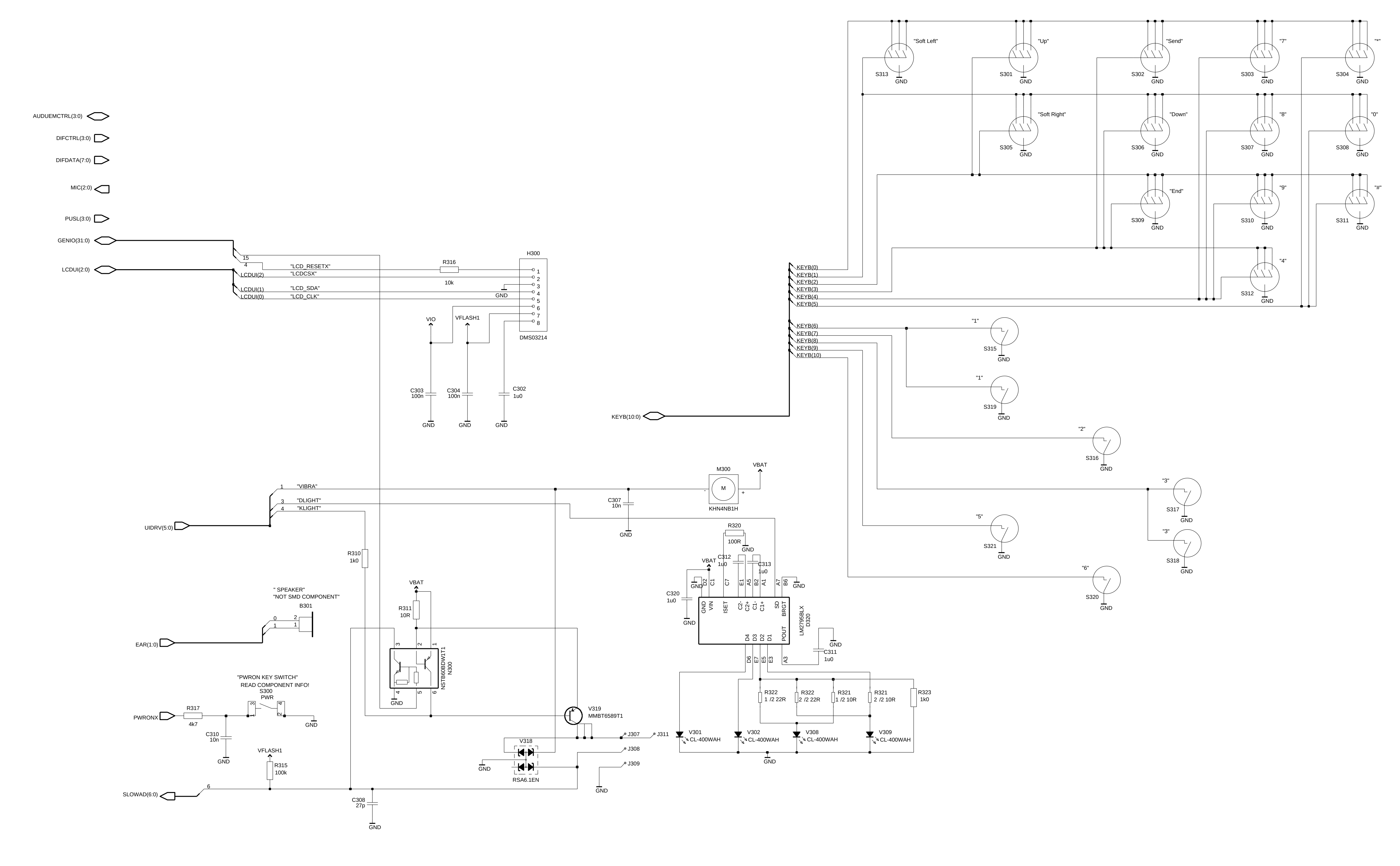

FMRADIO
empty
AUDUEMCTRL(3:0)
FMANT
PUSL(3:0)
XAUDIO(17:0)
GENIO(31:0)
Components: 356-385
CAMERA
empty
AUDUEMCTRL(3:0)
GPIO(29:0)
PUSL(3:0)
CCP(4:0)
LCDUI(2:0)
GENIO(31:0)
Components: 1000-1025
LPRF
empty
RFCONVCTRL(2:0)
PUSL(3:0)
AUDUEMCTRL(3:0)
LPRFCLK
GENIO(31:0)
Components: 130-149
KEY_UI
popeye
LCDUI(2:0)
KEYB(10:0)
GENIO(31:0)
UIDRV(5:0)
PWRONX
SLOWAD(6:0)
DIFDATA(7:0)
DIFCTRL(3:0)
MIC(2:0)
EAR(1:0)
PUSL(3:0)
AUDUEMCTRL(3:0)
Components: 300-349
MULTIGND
gnd
IRGND
AGND1
AGND2
RF_BB
pippi
SLOWAD(6:0)
RFCONV(9:0)
RFAUXCONV(2:0)
LPRFCLK
RFCLK
RFCLKGND
RFAUX(1:0)
GENIO(31:0)
PUSL(3:0)
RFCONV_ANA(16:0)
RFCONV_DIGI(16:0)
RFICCTRL(2:0)
SLOWAD_O(6:0)
RFCONV_O(9:0)
RFAUXCONV_O(2:0)
LPRFCLK_I
RFCLK_I
RFCLKGND_I
RFAUX_O(1:0)
GENIO_O(31:0)
PUSL_O(3:0)
RFCONV_ANA_O(16:0)
RFCONV_DIGI_O(16:0)
RFICCTRL_O(2:0)
Components: 420-439
AUDIO
pippi
PUSL(3:0)
HOOKINT
EAR(1:0)
GENIO(31:0)
HEADINT
UIDRV(5:0)
MIC(2:0)
SLOWAD(6:0)
XMIC(2:0)
XAUDIO(17:0)
XEAR(3:0)
AUDIO(6:0)
IHF(1:0)
AUDUEMCTRL(3:0)
AUDIO Components: 150-199
ANCO Components: 170-199
POWER
pippi
PWRONX
RFCONV(9:0)
RFAUXCONV(2:0)
UIDRV(5:0)
GENIO(31:0)
XAUDIO(17:0)
AUDIO(6:0)
IHF(1:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
AUDIODATA(3:0)
SLOWAD(6:0)
GPIO(31:0)
AUDUEMCTRL(3:0)
IACCDIF(5:0)
PUSL(3:0)
SIMIF(3:0)
ACCDIF(2:0)
SIM2MMCIF(3:0)
CHARGER(4:0)
IRIF(2:0)
POWER Components: 200-299
STEPUP Components:260-269
DC/DC Components:270-299
UPP /TIKU
basic8m
CCP(4:0)
RFCLK
LCDUI(2:0)
RFCLKGND
KEYB(10:0)
RFCONV_ANA(16:0)
GENIO(31:0)
RFCONV_DIGI(16:0)
DIFDATA(7:0)
RFICCTRL(2:0)
DIFCTRL(3:0)
MEMADDA(15:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
MEMAD(24:16)
ISIMIF(2:0)
MEMCONT(9:0)
AUDIODATA(3:0)
SDRAD(15:0)
GPIO(29:0)
SDRDA(15:0)
AUDUEMCTRL(3:0)
SDRCTRL(8:0)
IACCDIF(5:0)
JTAG_EMULATION(6:0)
PUSL(3:0)
DSP_MCUTEST(2:0)
USB_DIG(6:0)
Components: 400-419
MEMORY
nmp64mbit_40mhz+sram
MEMADDA(15:0)
MEMAD(24:16)
MEMCONT(9:0)
GENIO(31:0)
Components: 450-469
SYS_CONN
popeye
FMANT
PWRONX
HOOKINT
HEADINT
RFAUX(1:0)
MIC(2:0)
XMIC(2:0)
XEAR(3:0)
UIDRV(5:0)
SLOWAD(6:0)
ACCDIF(2:0)
CHARGER(4:0)
IACCDIF(5:0)
GENIO(31:0)
DSP_MCUTEST(2:0)
SIMIF(3:0)
USB_DIG(6:0)
PUSL(3:0)
AUDUEMCTRL(3:0)
SYS_CONN Components: 100-129
HEADSET Components: 120-129
EMU
empty
JTAG_EMULATION(6:0)
DSP_MCUTEST(2:0)
Components: 480-490
Ostrich Components: 470-479
Jtag Components: 480-489
SIM
popeye
SIMIF(3:0)
SIM2MMCIF(3:0)
GENIO(31:0)
Components: 380-395
GPS
empty
GENIO(31:0)
PUSL(3:0)
Components: 440-449
IR
empty
IRIF(2:0)
IACCDIF(5:0)
GENIO(31:0)
GPIO(29:0)
Components: 350-355

System connector

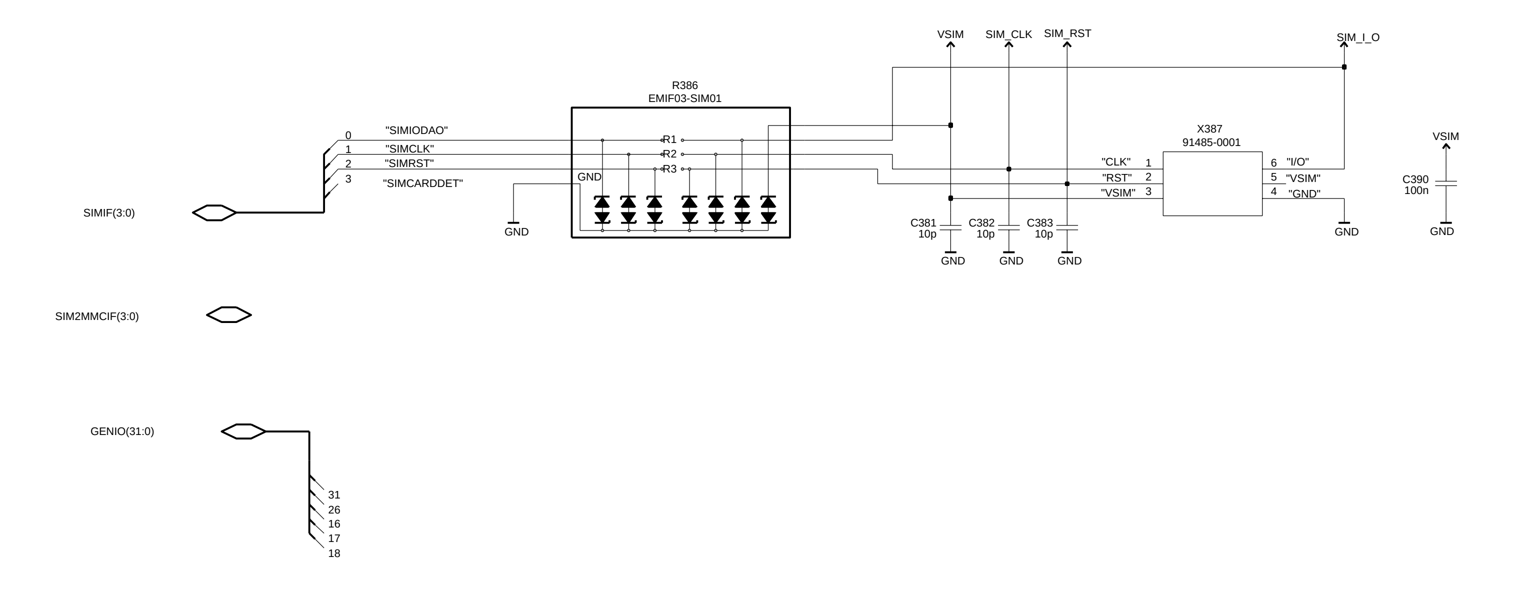


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U/I, key and functional cover

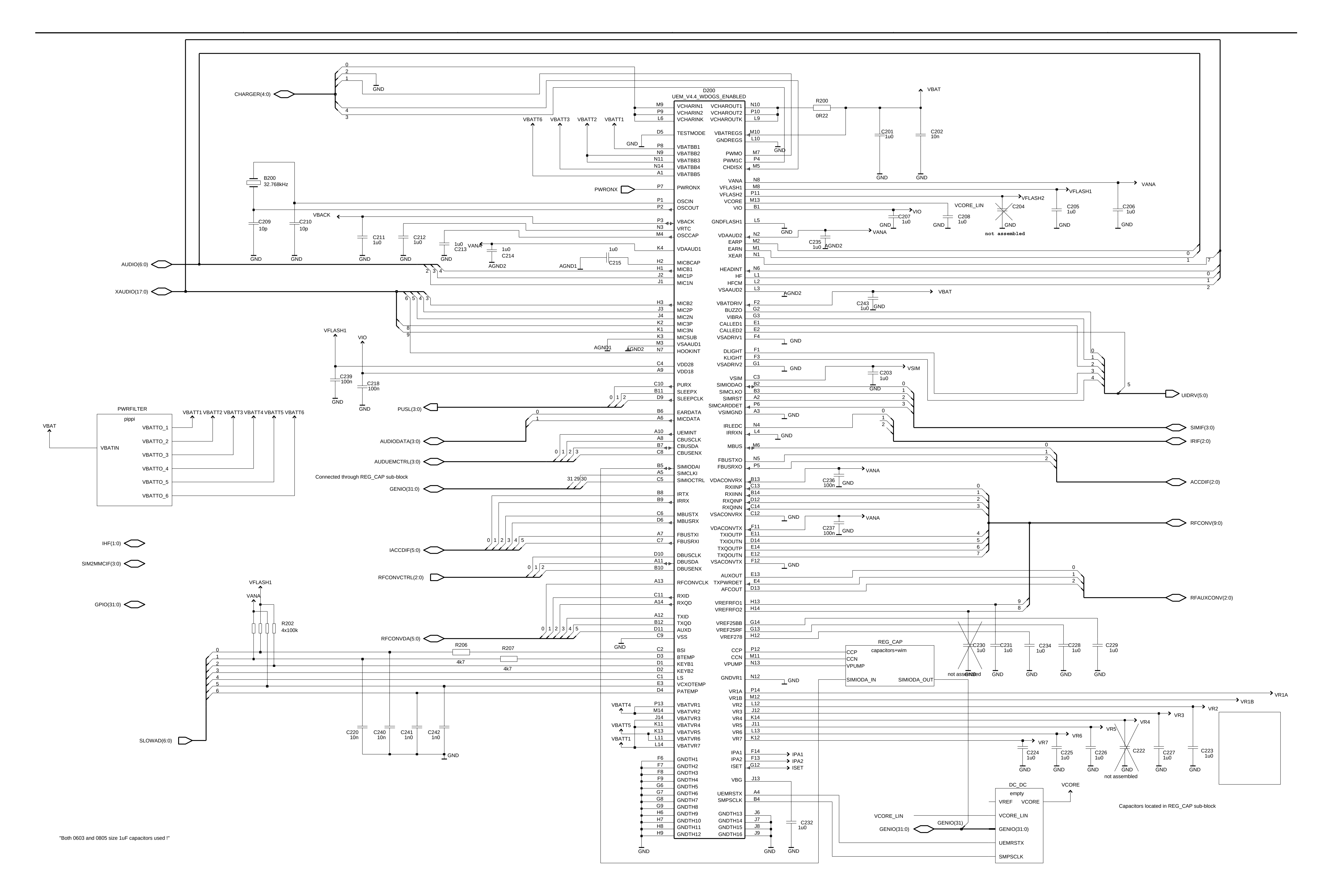


SIM



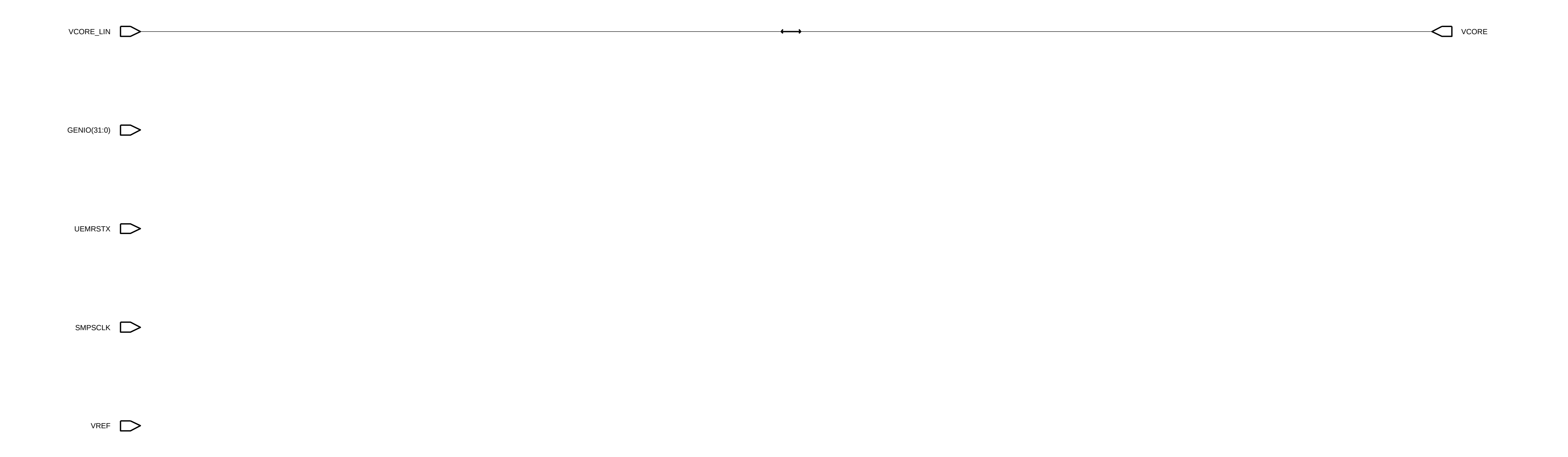
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UEM



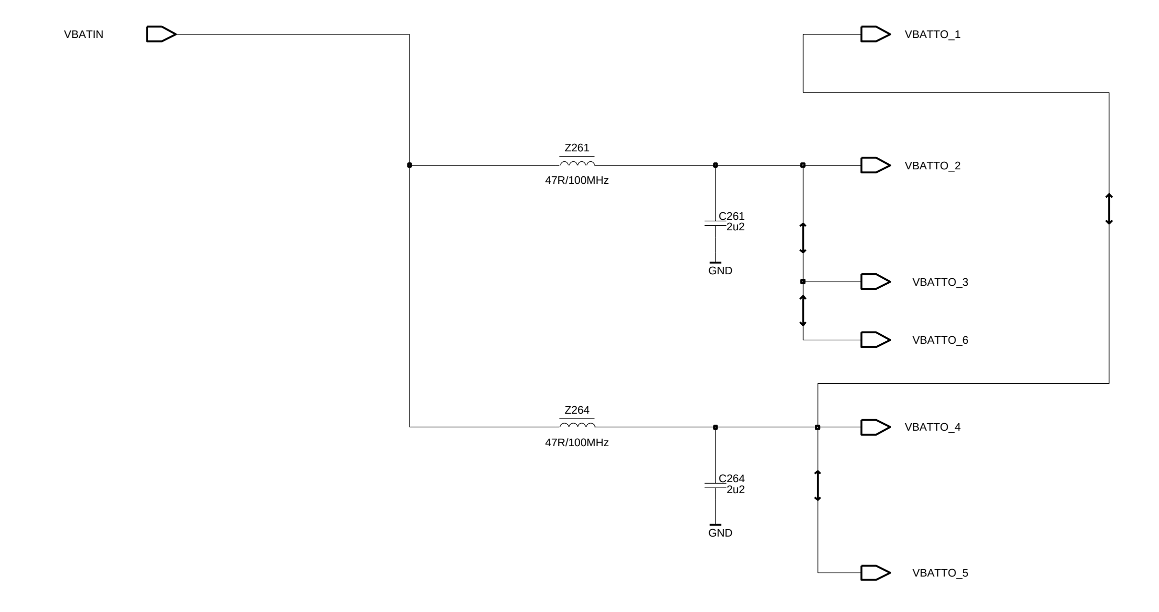
D200
UEM_V4.4_WDOGS_ENABLED
CHARGER(4:0)
AUDIO(6:0)
XAUDIO(17:0)
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(3:0)
GENIO(31:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
SLOWAD(6:0)
IHF(1:0)
SIM2MMCIF(3:0)
GPIO(31:0)
UIDRV(5:0)
SIMIF(3:0)
IRIF(2:0)
ACCDIF(2:0)
RFCONV(9:0)
RFAUXCONV(2:0)
PWRFILTER
pippi
VBATIN
VBATTO_1
VBATTO_2
VBATTO_3
VBATTO_4
VBATTO_5
VBATTO_6
VBAT
B200
32.768kHz
R200
0R22
R202
4x100k
R206
4k7
R207
4k7
Connected through REG_CAP sub-block
REG_CAP
capacitors+wim
DC_DC
empty
not assembled
Capacitors located in REG_CAP sub-block
"Both 0603 and 0805 size 1uF capacitors used !"

Vcore



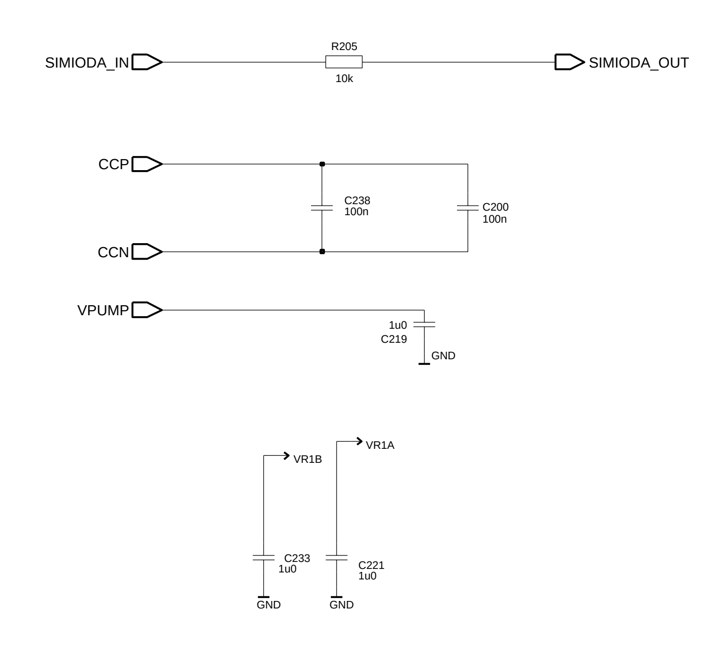
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Vbat filter

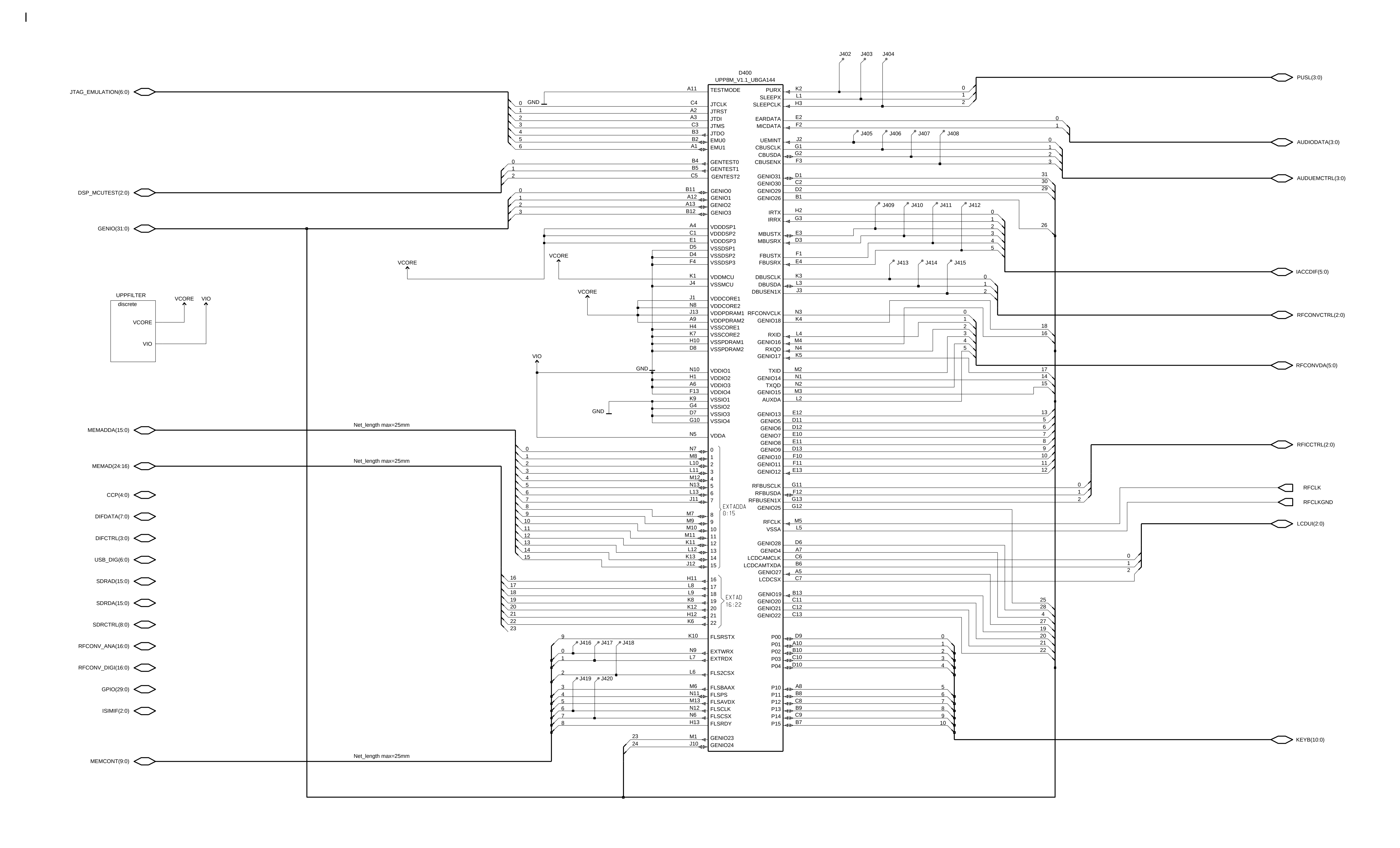


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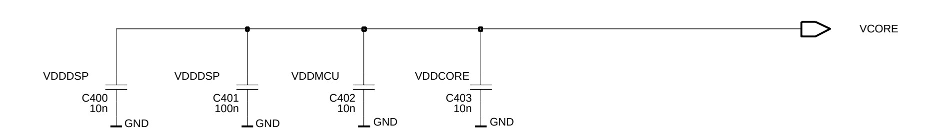
UEM charge pump

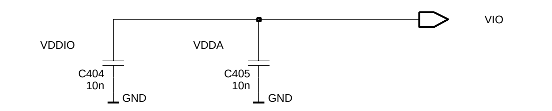


UPP

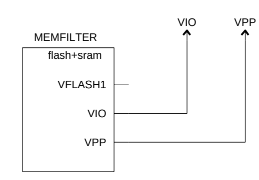

D400
UPP8M_V1.1_UBGA144
JTAG_EMULATION(6:0)
DSP_MCUTEST(2:0)
GENIO(31:0)
UPPFILTER
discrete
VCORE
VIO
MEMADDA(15:0)
MEMAD(24:16)
CCP(4:0)
DIFDATA(7:0)
DIFCTRL(3:0)
USB_DIG(6:0)
SDRAD(15:0)
SDRDA(15:0)
SDRCTRL(8:0)
RFCONV_ANA(16:0)
RFCONV_DIGI(16:0)
GPIO(29:0)
ISIMIF(2:0)
MEMCONT(9:0)
Net_length max=25mm
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(3:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
RFICCTRL(2:0)
RFCLK
RFCLKGND
LCDUI(2:0)
KEYB(10:0)

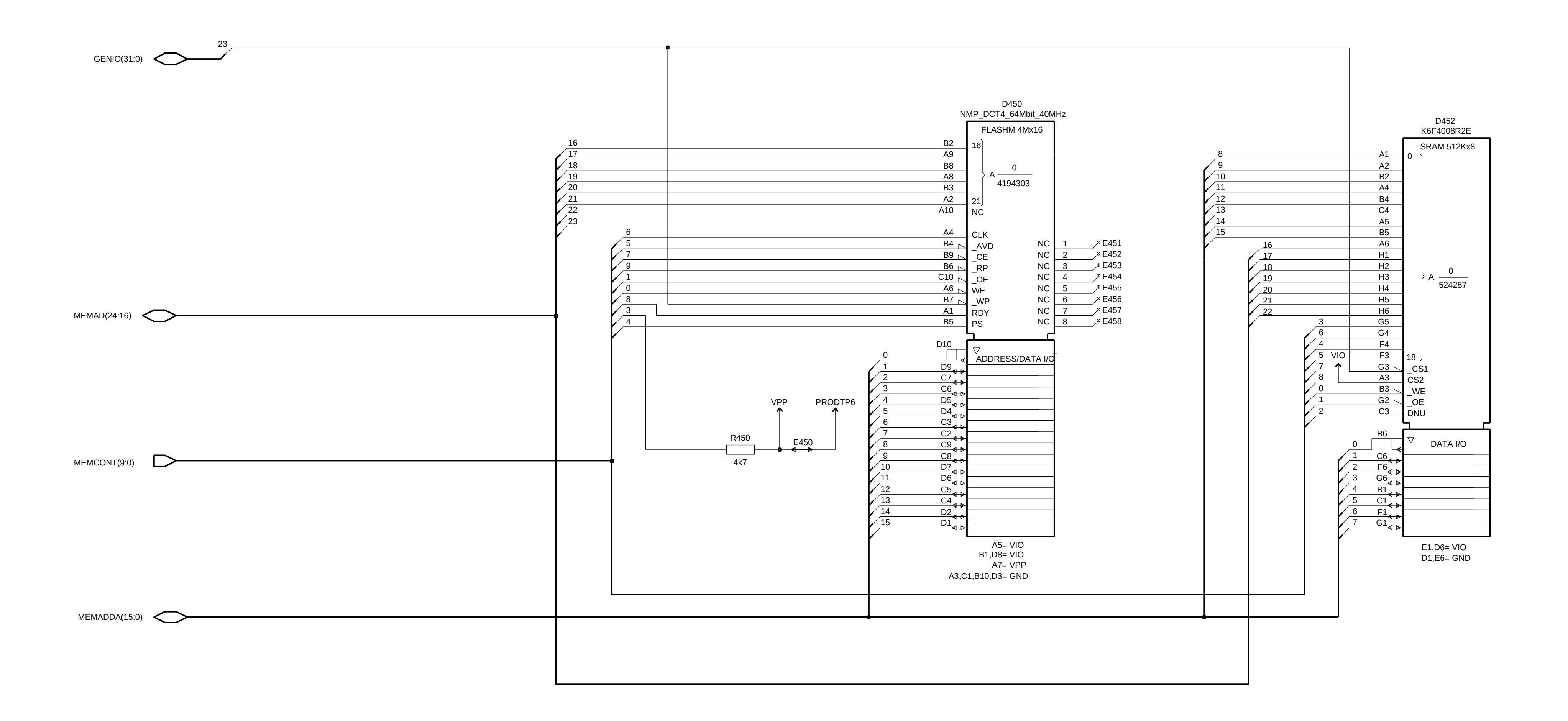
UPP decoupling





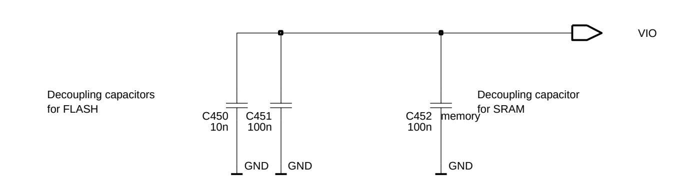
Memory


MEMFILTER
flash+sram
VFLASH1
VIO
VPP
VIO
VPP


GENIO(31:0)
MEMAD(24:16)
MEMCONT(9:0)
MEMADDA(15:0)
D450
NMP_DCT4_64Mbit_40MHz
FLASHM 4Mx16
4194303
CLK
_AVD
_CE
_RP
_OE
WE
_WP
RDY
PS
ADDRESS/DATA I/O
E451
E452
E453
E454
E455
E456
E457
E458
R450
4k7
E450
VPP
PRODTP6
A5= VIO
B1,D8= VIO
A7= VPP
A3,C1,B10,D3= GND
D452
K6F4008R2E
SRAM 512Kx8
524287
_CS1
CS2
_WE
_OE
DNU
DATA I/O
E1,D6= VIO
D1,E6= GND

Memory decoupling

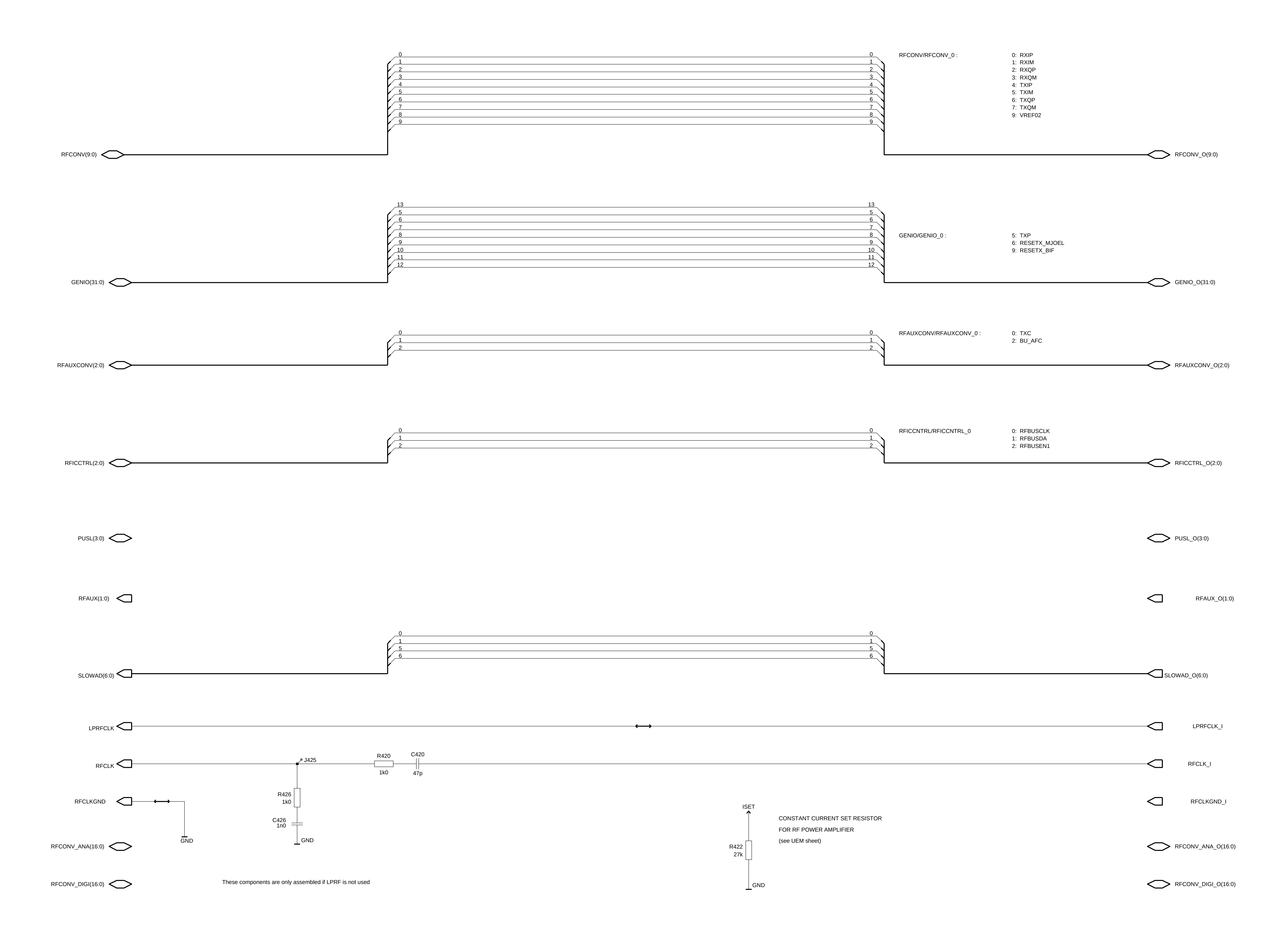
VFLASH1



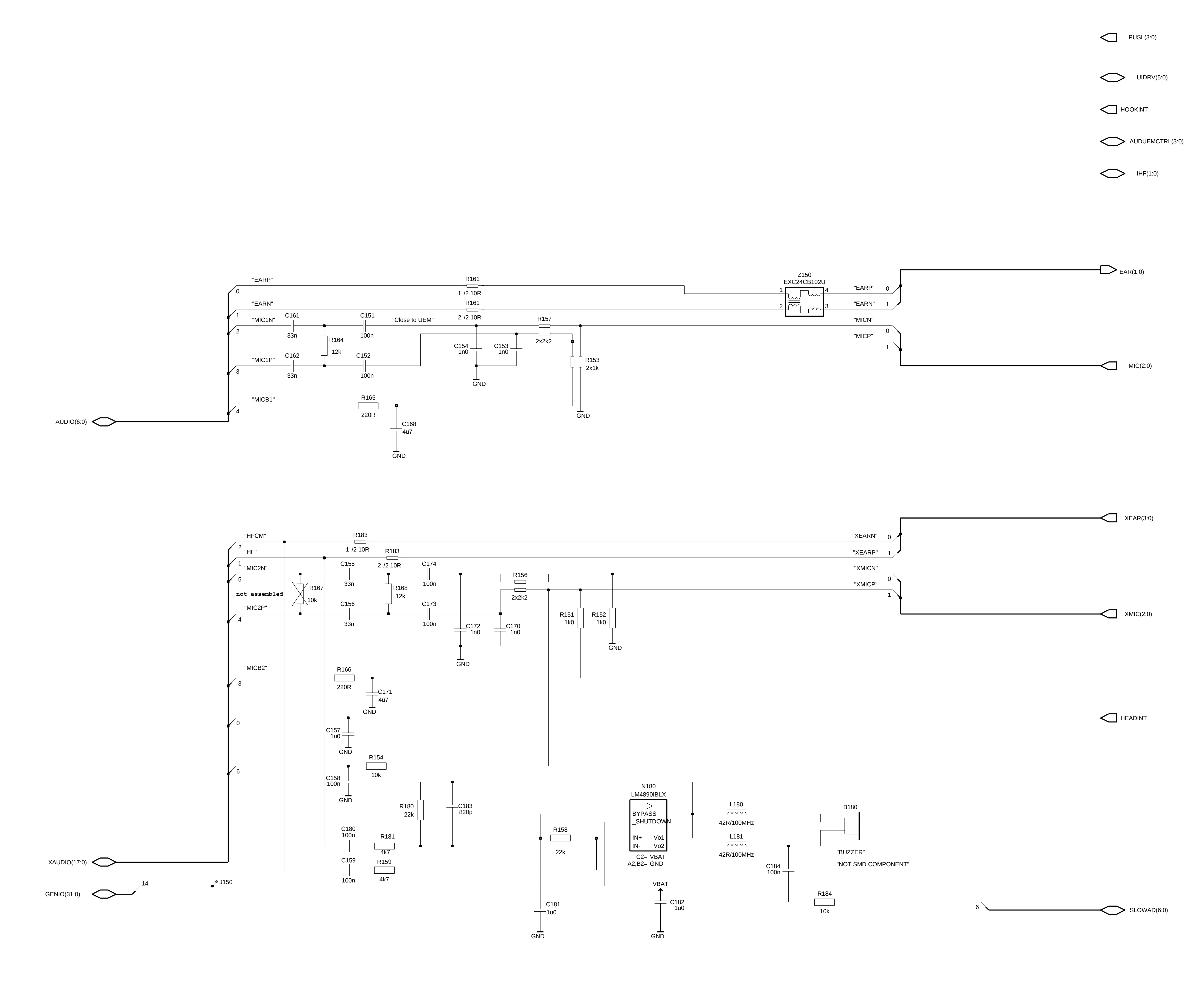


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BB-RF


RFCONV/RFCONV_0 :
0: RXIP
1: RXIM
2: RXQP
3: RXQM
4: TXIP
5: TXIM
6: TXQP
7: TXQM
9: VREF02
RFCONV(9:0)
RFCONV_O(9:0)
GENIO/GENIO_0 :
5: TXP
6: RESETX_MJOEL
9: RESETX_BIF
GENIO(31:0)
GENIO_O(31:0)
RFAUXCONV/RFAUXCONV_0 :
0: TXC
2: BU_AFC
RFAUXCONV(2:0)
RFAUXCONV_O(2:0)
RFICCNTRL/RFICCNTRL_0
0: RFBUSCLK
1: RFBUSDA
2: RFBUSEN1
RFICCTRL(2:0)
RFICCTRL_O(2:0)
PUSL(3:0)
PUSL_O(3:0)
RFAUX(1:0)
RFAUX_O(1:0)
SLOWAD(6:0)
SLOWAD_O(6:0)
LPRFCLK
LPRFCLK_I
RFCLK
J425
R420
1k0
C420
47p
RFCLK_I
RFCLKGND
RFCLKGND_I
R426
1k0
C426
1n0
GND
ISET
CONSTANT CURRENT SET RESISTOR
FOR RF POWER AMPLIFIER
(see UEM sheet)
R422
27k
RFCONV_ANA(16:0)
RFCONV_ANA_O(16:0)
RFCONV_DIGI(16:0)
RFCONV_DIGI_O(16:0)
These components are only assembled if LPRF is not used

Audio


PUSL(3:0)
UIDRV(5:0)
HOOKINT
AUDUEMCTRL(3:0)
IHF(1:0)
EAR(1:0)
MIC(2:0)
AUDIO(6:0)
Z150
EXC24CB102U
R161
1 /2 10R
2 /2 10R
"EARP"
"EARN"
"MIC1N"
"MIC1P"
"MICB1"
"MICN"
"MICP"
C161
33n
C162
33n
C151
100n
C152
100n
R164
12k
"Close to UEM"
C154
1n0
C153
1n0
R157
2x2k2
R153
2x1k
R165
220R
C168
4u7
GND
XEAR(3:0)
XMIC(2:0)
HEADINT
"HFCM"
"HF"
"MIC2N"
"MIC2P"
"MICB2"
"XEARN"
"XEARP"
"XMICN"
"XMICP"
R183
1 /2 10R
2 /2 10R
C155
33n
C156
33n
R167
10k
not assembled
R168
12k
C174
100n
C173
100n
C172
1n0
C170
1n0
R156
2x2k2
R151
1k0
R152
1k0
R166
220R
C171
4u7
C157
1u0
R154
10k
C158
100n
R180
22k
C183
820p
N180
LM4890IBLX
BYPASS
_SHUTDOWN
IN+
IN-
Vo1
Vo2
C2= VBAT
A2,B2= GND
L180
42R/100MHz
L181
42R/100MHz
B180
"BUZZER"
"NOT SMD COMPONENT"
C180
100n
R181
4k7
C159
100n
R159
4k7
R158
22k
C181
1u0
VBAT
C182
1u0
C184
100n
R184
10k
XAUDIO(17:0)
GENIO(31:0)
J150
SLOWAD(6:0)

Multignd

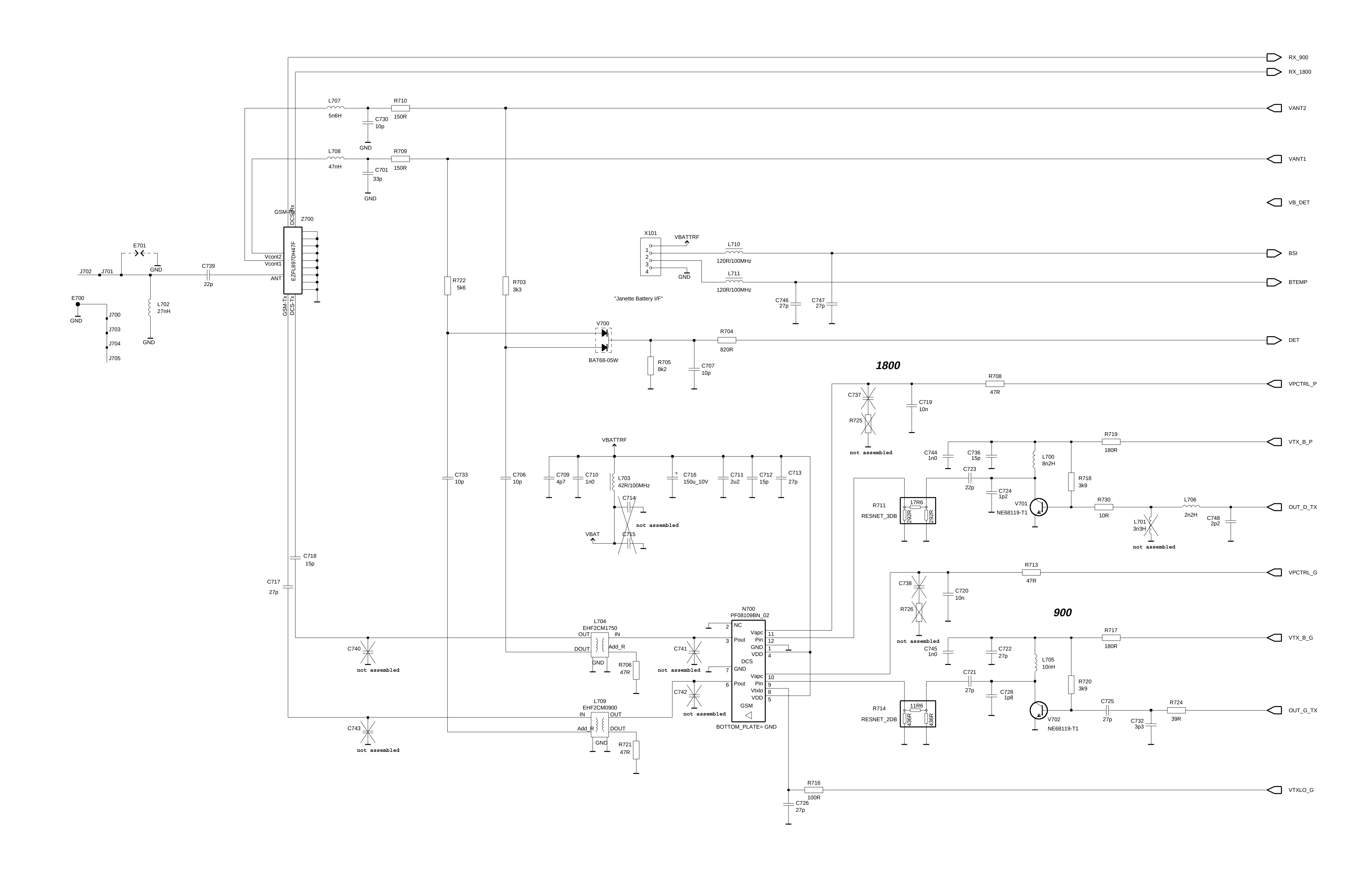
GND
IRGND

GND
AGND1

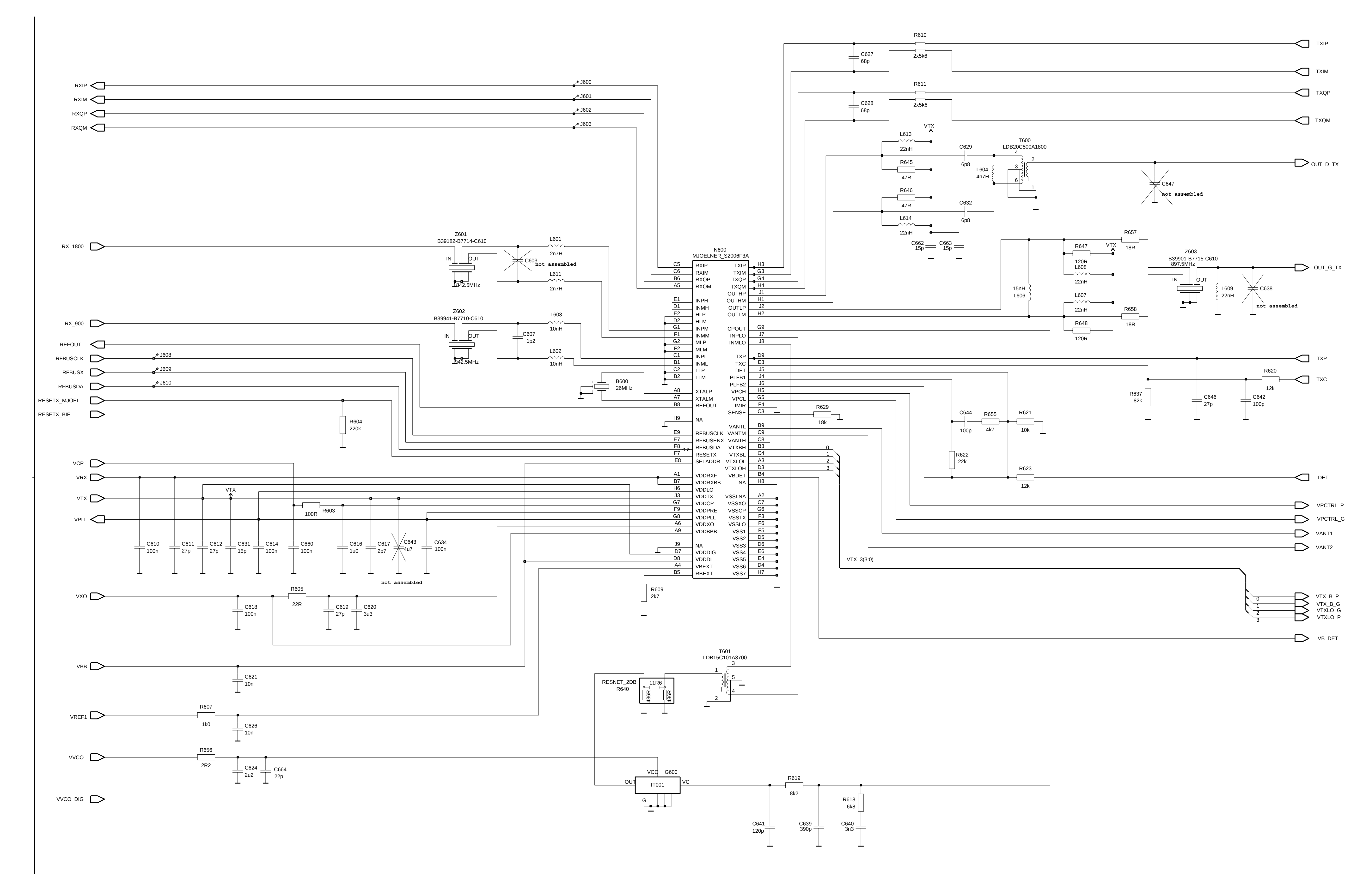
GND
AGND2

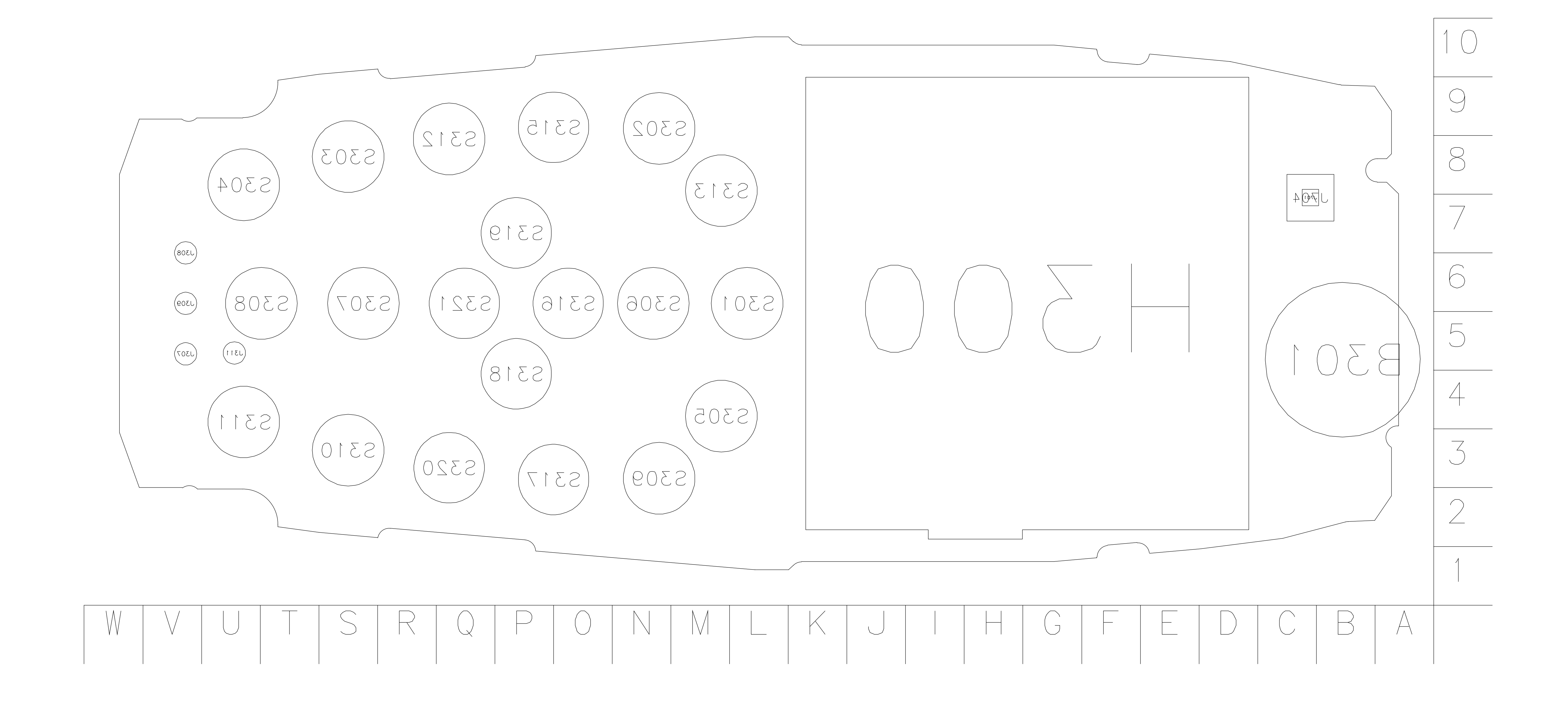
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Power amplifier



Mjoelner




S304
S303
S312
S315
S302
S313
S319
S308
S307
S321
S316
S306
S301
S318
S311
S310
S320
S317
S309
S305
H300
B301
10
9
8
7
6
5
4
3
2
1
W
V
U
T
S
R
Q
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A

